# Impact of the teaching for understanding (TfU) approach on the academic performance of secondary school students at "Hermanas Bethlemitas Sagrado Corazón De Jesús" School, Pamplona

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## Abstract

The objective of this article is to analyze the incidence of the Teaching for Understanding (TFU) approach in the academic performance of secondary-school students at "Hermanas Bethlemitas - Sagrado Corazón de Jesús" School in Pamplona (Norte de Santander). The type of research used was qualitative with a phenomenological design. The key participants were five students, one in ninth-grade, three in tenth-grade and one in eleventh-grade, who had low academic performance before the implementation of the Teaching for Understanding (TFU) approach and who have improved their results in the following years, according to evaluation commissions; and three teachers from the areas of English, Mathematics and Biology. For data collection, individual in-depth interviews and focus group interviews were conducted.

The main result is that the Teaching for Understanding approach does not establish a significant degree of impact on the academic performance of students, as is their personal decision regarding academic responsibility, but the methodological change has indeed generated greater involvement. in the classes, feedback, a better student - teacher relationship and with it better results.

**Keywords:** Teaching for understanding, academic performance, pedagogical practice, student attitude, teaching and learning strategies.

## Introduction

Talking about academic performance implies the review of multiple factors and elements that influence and are related in a complex way; Alfaro, Espino, Barajas and Cahue (2016) argue that student academic life has multiple individual, family and social variables, which have been shown to have implications on student academic performance.

It should be clarified that each institution has a specific evaluation system, which ultimately seeks to evidence, through specific categories, the learning process that the student has developed during a given period. Therefore, as stated by Erazo (2012), academic performance is recognized by its ability to classify and its link to the promotion and evaluation of students; its expression in grades and academic averages identify it objectively.

Academic performance has been approached from different perspectives and is one of the topics of greatest interest at the research level; in this process it has been reviewed from the factors that determine it to those that affect it, including individual, social and contextual variables. Academic performance is a tool that allows an approach to the phenomenon of learning, but at the same time visualizes a questioning and worrying reality in relation to the quality of education, not only in Colombia but in Latin America. The Organization for Economic Cooperation and Development (OECD) in relation to the International Assessment (PISA) mentions that Latin America is below the global standards of school performance. (Salinas, 2016).

At the same time, within the current educational challenges, it is a priority to generate an education that allows human beings to develop different abilities and skills that facilitate their interaction in an effective and efficient way with their changing environment, to respond to the cultural, social and economic dynamics in which they are immersed, characterized by inequity, unemployment and the destruction of natural resources, among other realities; each time the demands of contemporary society, permeated by the processes of globalization, technological advances and the society of knowledge, are more complex to face.

Faced with this reality, educational advances have been oriented towards new ways of conceiving the curriculum, new ways of understanding the processes of teaching and learning and, in short, new models of schooling, as can be seen in the many documents produced by UNESCO and the Organization for Economic Cooperation and Development (OECD). (Zúñiga, Leiton & Naranjo, 2014); therefore, different models and approaches or pedagogical perspectives have been generated in order to respond to the demands of the context and the challenges of today's society.

This study was carried out in the "Hermanas Bethlemitas - Sagrado Corazón de Jesús" School in Pamplona, which has remained for years in the "Very Superior" category, according to the classification by ICFES. Even so, one of the elements of greatest concern in the evaluation commissions is the persistent low academic performance in some students. On the other hand, in order to favor the integral development, involving the cooperative and equitable action, from the potential and capacities of its students, the school began the implementation of Teaching for Understanding (TFU) approach at the end of the year 2016.

It is a teaching-learning approach that was developed in 1967 at Harvard University, based on competences and performance, associated with constructivist theories, from multiple intelligences, significant learning and the importance of visualizing thought; its central axis is the development of human thought based on the continuous understanding of knowledge and it revolves around three questions: What do we want students to understand? How will students build that understanding? How do we know that they understand? (Wilson, 2017; Barrera & León, 2008; Otálora, 2019.) These questions guide its conceptual framework constituted by the following components:

**Leading threads**: Key questions that organize and guide disciplinary learning over time, propose the construction of deep and complex understandings.

**Generative topics**: Ideas, concepts, themes and/or central or fundamental facts that go to the essence of the disciplines.

**Goals of understanding**: They specifically define ideas, processes, relationships or questions that will be understood through their inquiry.

**Comprehension performances**: activities that demonstrate the understanding of knowledge in different situations.

**Continuous Assessment**: It is a process based on action and constant feedback to strengthen the process of understanding, which ultimately seeks the progress of the student with clear and constant criteria; it is a process that not only develops the teacher but is nourished by co-evaluation and self-assessment. (Stone, 1999; Wilson, 2017 and Barrera & Leon, 2008)

Such implementation has demanded a change, not only at the curriculum level but also in the teaching practice, and therefore, a change at the methodological level, characterized by multiple didactic strategies used inside the classroom, which are oriented to generate significant learning, which directly impacts the student and modifies, in turn, an institutional dynamic.

By immersing ourselves in the context and approaching the phenomenon of study, we find that students, who for several years have been reported to have subjects with low performance, currently show better results. For this reason, the objective of this article is to analyze the impact of the Teaching for Understanding approach on the academic performance of secondary school students at "Hermanas Bethlemitas Sagrado Corazón de Jesús" School in Pamplona (Norte de Santander), and thus review how the implementation of new pedagogical trends in the Colombian context can favor better academic performance.

## Methodology

This research is of a qualitative type, framed in a phenomenological design, oriented to

the understanding of the phenomenon of academic performance within the context of the implementation of the Teaching for Understanding approach, from the perspective of the teaching participants and students individually and collectively, taking into account their subjective experiences and from them finding possible meanings (Fernandez, Hernandez & Baptista, 2010). For Aguirre and Jaramillo (2012), this methodology favors the knowledge of school realities, especially the experiences of the actors in the training process; in the face of any change, it is essential to monitor the scope and functional dynamics of the process to make the appropriate adjustments and for this it is essential to know what the actors think.

Thus, the phases of the research were defined with their corresponding techniques and instruments, according to the proposals of Correa, Campos, Carvajal and Rivas (2013), who point out three fundamental phases: descriptive, structural and discussion of results.

The first one seeks the description of the phenomenon studied, broad and not prejudicially possible, that reflects the reality lived by the participants, using for this process the techniques of individual in-depth interview and focus group interview, developed with the two groups of key informants, students and teachers. Therefore, one ninth-grade student, three tenth-grade students, and one eleventh-grade student, who recorded low academic performance before the implementation of the Teaching for Understanding approach and improved performance after it, were addressed through this procedure, as well as three teachers who are guiding the areas of mathematics, biology and English, areas with highest failure levels reported.

In the second phase, a study was made of the data obtained through the methodological approach proposed by Marí, M. Bo and Climent (2010), who establish a proposal for phenomenological analysis of the data focused on the transcription of the data, elaboration of units of analysis of general meaning coded accordingly, elaboration of units of meaning for the subject of the research where the initial codifications are compared and grouped in units of meaning, verification of the relevant units of meaning and conclusion. This leads to the following categories of analysis:

Table 1. *Selected categories in the analysis of results.*

| Basic category | Analysis category | Analysis subcategory | Emerging category |
|---|---|---|---|
| Teaching | Planning | Conductor wires<br>Generative topics<br>Compression goals | Student's attitude.<br>Resistance to change. |
| | Class Structure | Classroom Organization<br>Classroom Orientations | |
| | Didactics: set of pedagogical actions that teachers develop to make students understand. | Compression performance<br>Exploring the topic<br>Guided Research<br>Final project of synthesis. | |
| Academic Performance | Evaluation | Grades by period<br>Evaluation Criteria<br>Feedback<br>Co-Evaluation<br>Self-evaluation | |

And in the third phase, based on the results obtained, they are reviewed with the findings of other researchers, establishing possible differences or similarities and thus understanding the phenomenon studied, from the arguments of key informants; this is the incidence of the implementation of the Teaching for Understanding approach in academic performance.

## Results

From the analysis of the units of meaning for the research topic and the emerging categories, the following findings are presented:

At the planning level, the structuring of threads, generative topics and understanding goals for teachers has been a complex process, which has mobilized an effort and change

of perspective; however, the understanding goals for both students and teachers do not achieve a significant impact or their initial purpose, which is to awaken interest in the topic to be addressed. Likewise, in this phase, it is fundamental to establish the relationship between the selected topics, a process that is developed through the network of ideas or graphic scheme, which facilitates students' knowledge of what they will work on during the period, but the presentation of these elements and the lack of follow-up detracts from its value; for teachers it is one more requirement, for students they are only raised at the beginning of the period and in many cases it is not taken up in any other part of the process.

According to the results in the didactic category, it is observed that group work, the questions that promote the thought, the variety of activities, the utility of the topics in the daily life given in the exploration of the topic and the interaction inside the classroom take to the practice the knowledge experienced in a significant way in the final project of synthesis which is a personal or group project that demonstrates what the student has managed to understand; they are elements of the TFU that have generated a greater involvement of the students in the class, which helps establish the importance of the diversification of didactic strategies and the use of approaches from the constructivist model in the motivation of the students, and from there a greater participation in their learning process. The approach is reviewed from the perspective of García, Álviarez and Torres (2011) who argue that the strategies implemented by teachers can have an effect on students and therefore on their academic performance.

It should be clarified that innovative strategies have an important impact on students, such as linking the knowledge that is developed within the classroom with the reality in which it moves, allowing them to explore the knowledge and find the usefulness of them even in their personal lives; the guided investigation and the final project of synthesis has given place to the experimentation and is one of the elements of greater impact at level of learning and academic motivation, considering that what is seen in class has a real function; therefore, not only does the professor intend for students to see the utility of a subject, but also for them to experience it through the production of a product or the experimentation. This supports one of the postulates or theoretical influences of the TFU, revised from the theory of Dewey, who postulated the need to encourage the activity of students and their protagonist participation in learning through the usefulness of knowledge through practice. (Anijovich and Mora, 2009).

On the other hand, it is important to point out that every process of curricular and methodological transformation implies the restructuring of multiple elements, which in turn generates a shock in the entire educational community; the teachers of the institution value the framework of the TFU as a valuable tool that enriches their professional practice, which has demanded a change of perspective and has become a challenge, to achieve the transformation of their pedagogical practice. Likewise, they perceive that one of the greatest limitations in the process of transformation and adoption of the approach is the time and the multiple activities of the institution, which generates greater complexity for the implementation of the TFU, an element to be taken into account, as Escobedo, Jaramillo and Bermúdez (2004) state: "To reach understanding, time is required: time for students to argue, investigate and articulate their theories. Understanding is not achieved overnight, it requires reflection-action-reflection-action". p. 533.

At the same time, breaking with the traditional paradigm and generating a culture of thought from the constructivist perspective has been confronted by the same resistance of students to change and the lack of autonomy

in the academic process, making it difficult to implement continuous assessment in the component of co-evaluation and self-evaluation.

Perkins and Blythe (1994) state that students, when continuously assessed, facilitate their learning process. This approach coincides with the results in the assessment category, in which the impact or positive perception of the key informants of the process of continuous assessment through the process of feedback is evident, which has strengthened the teacher-student relationship and with it the perception in the student that the teacher is more focused on him/her, a fundamental objective of the TFU.

However, there are indeed structural, didactic, and evaluation changes that both students and teachers consider important, because they have mobilized greater student involvement in class; for the key informants there is no significant impact of the implementation of the TFU on their academic performance, since its improvement is not the result of the change in pedagogical methodology, but rather is given more by personal factors, of decision and personal attitude, internal factors mediated in turn by others that are not necessarily linked to the teaching category.

However, it is considered pertinent to review the basis of that resistance perceived by teachers in students to enable improvement actions that contribute to excellent results, such as the dynamization of the components of the TFU, conductive threads, generative topics, comprehension goals, comprehension performances and continuous evaluation, evaluating their belonging and scope, facilitating a greater adherence to the process. Likewise, it is fundamental to develop adjustments in each one taking into account the findings of this research.

## Conclusions

The new trends in teaching and learning make teaching practice more dynamic and demand a change of perspective in order to respond to the current demands of a changing society, driven by new technologies and the process of globalization. There are many proposals and approaches that have emerged in recent years, some from other cultures and contexts, so it is essential to validate and analyze them in the classroom.

Identify that, although elements such as motivation and attitude towards learning are essential keys to improving academic performance, careful planning with purpose, dynamically related to the pedagogical strategies and effective monitoring from the perspective of continuous assessment, favor greater involvement in the process and thus better results; therefore, the teacher plays a key role in guiding the teaching-learning process and the continuous changes of today's society. It is necessary to continuously and constantly reflect on their own exercise.

The framework of teaching for understanding is a proposal that not only focuses on the acquisition of information but also on the flexible use of knowledge in different contexts and situations. Its design has been based on the deep analysis of different proposals framed from the constructivist perspective, the evaluation of their significance, action-reflection as a support for the pedagogical task, some of the principles of active pedagogies which, in addition, bets on the development of creative thinking. (Baquero & Ruiz, 2005)

Likewise, adopting these new proposals for teaching and learning implies not only a curricular transformation, but also demands a restructuring from the same point of view as pedagogical work and a cognitive structural change in the student, which is not easy, and can give rise to new research from the analysis of the affective component in the face of change, generating proposals for action or improvement that facilitate implementation in an effective and efficient manner.

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